

Tests 2024

Better growth-regulating effect in rye when Bio pH Control is added to plant growth regulators

In 2024, Agrolab A/S carried out plant trials for BioNutria. The trials investigated whether a greater effect could be achieved by adding Bio pH Control to Growth regulator 1 and Growth regulator 2, respectively.

The trials were performed with a logarithmic sprayer with a starting dose of 2 kg/ha for Growth regulator 1 and 1 L/ha for Growth regulator 2 and were conducted in growth stage 31–32.

The data plot in Figure 1 to the right shows that there is an effect improvement (height reduction in relation to untreated spray liquid) of up to 40% at a given dosage, expressed as a reduction in height at a given dose.

For example, 0.35 kg Growth regulator 1 per ha is required to reduce the height by 5 cm without the addition of Bio pH Control, whereas with Bio pH Control, only 0.25 kg/ha Growth regulator 1 is required to achieve a reduction of 5 cm.

For a reduction of 10 cm, 0.48 kg/ha is needed without Bio pH Control and 0.35 kg/ha with Bio pH Control, corresponding to a 15% improvement in dosage effect.

Figure 2 shows crop height at different dosages of Growth regulator normally used in agriculture.

In the testing with Growth regulator 2 (Figure 3 below), an even greater improvement of over 40% is seen when Bio pH Control is added.

In fact, balancing the spraying liquid with Bio pH Control for Growth regulator 2 has increased the effect so much that it almost corresponds to the effect of Growth regulator 1 with added Bio pH Control.

Figure 3 shows plant height at selected dosages of Growth regulator 2 normally used in agriculture. Growth regulator 2 barely works at dosages below 0.20 L/ha unless Bio pH Control is added.

This year's trial with Bio pH Control in rye shows that there is potential for great improvement in the effect by adding Bio pH Control to two of the best growth regulators on the market.

In 2025, we will therefore follow up on the experiments in rye and make the same treatments in both wheat and rye.

¹ Growth Regulator 1 (trinexapac-ethyl/prohexadion-calcium)

² Growth Regulator 2 (trinexapac-ethyl).

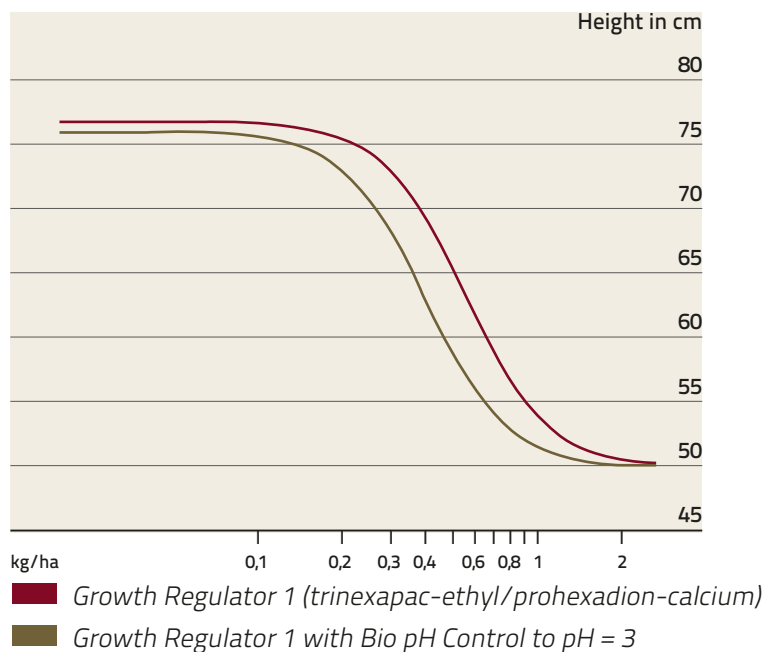
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Tests conducted by Agrolab 2024

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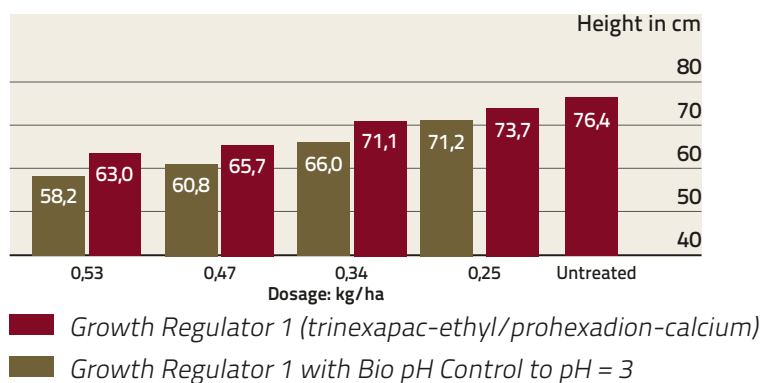
Growth regulation in rye – Figure 1

Improved effect by adding Bio pH Control to pH = 3 in growth regulation of rye using Growth Regulator 1.



Growth regulation in rye – Figure 2

Crop height in rye at applied dosages of Growth Regulator 1 with and without the addition of Bio pH Control to pH = 3



Growth regulation in rye – Figure 3

Crop height in rye at applied dosages of Growth Regulator 2 with and without the addition of Bio pH Control to pH = 3.

